Mathematics Toolkit: Grade 7 Objective 1.B.1.b

Standard 1.0 Knowledge of Algebra, Patterns, and Functions
Topic B. Expressions, Equations, and Inequalities
Indicator 1. Write and evaluate expressions
Objective b. Evaluate algebraic expressions
Assessment Limits:
Use one unknown and no more than two operations (+, -, ×, ÷ with no remainders) with whole numbers (0 – 200), fractions with denominators as factors of 100 (0 – 100), or decimals with no more than three decimal places (0 – 100)

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Sample Item #1 Extended Constructed Response (ECR) Item with Annotated Student Responses

Question

Note: This problem is solved without a calculator.

Amanda's long distance telephone plan charges a monthly fee of $14.95 and $.05 per minute for the number of minutes (m) that she uses her telephone. The monthly charge for Amanda's long distance telephone plan is represented by the expression shown below.

$$14.95 + 0.05m$$

Step A

How much is the monthly charge for Amanda's long distance telephone plan if she talks for 150 minutes in one month?

Step B

- Use what you know about expressions to explain how you determined the monthly charge for Amanda's long distance telephone plan. Use words, numbers, and/or symbols in your explanation.
- Suppose that the cost per minute changes to $.07 per minute. Explain how this change will affect the charge for Amanda's telephone plan. Use words, numbers, and/or symbols in your explanation.

Step A is scored 0 (Incorrect) or 1 (Correct) and assesses 1.B.1.b.
Step B is scored with a 4 point (0, 1, 2, 3) rubric and assesses Processes of Mathematics.

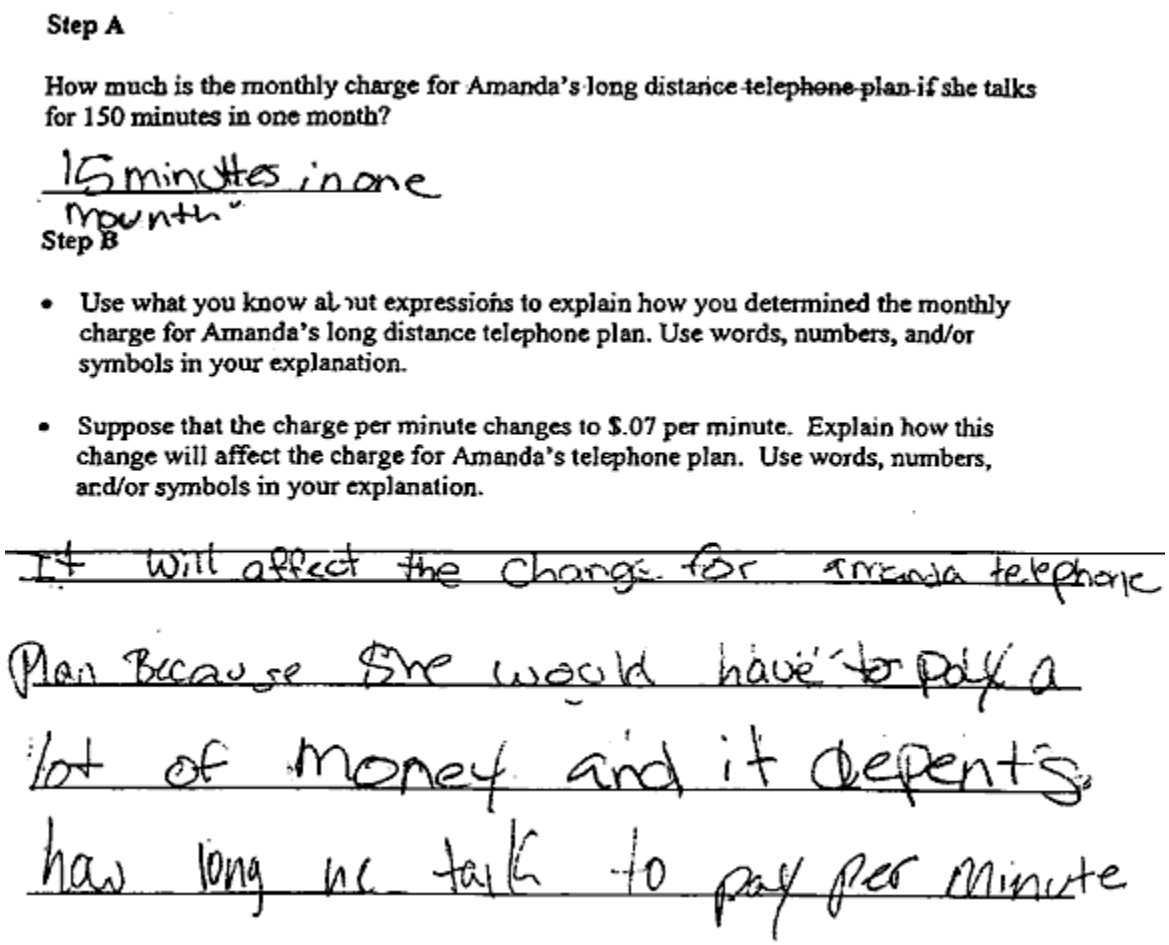
Note: Fifteen "Sample Student Responses" follow below. Each response appears on its own separate page and includes scoring information. The "Sample Student Responses" represent a range of score points.

Correct Answer

Step A
$22.45

Annotated Student Responses

Sample Student Response #1



Step A

How much is the monthly charge for Amanda's long distance ~~telephone plan if~~ she talks for 150 minutes in one month?

15 minutes in one mounth

Step B

- **Use what you know about expressions to explain how you determined the monthly charge for Amanda's long distance telephone plan. Use words, numbers, and/or symbols in your explanation.**
- **Suppose that the charge per minute changes to $.07 per minute. Explain how this change will affect the charge for Amanda's telephone plan. Use words, numbers, and/or symbols in your explanation.**

It will affect the charge for Amanda telephone Plan Because She would have to pay a lot of money and it depents how long he talk to pay per minute

Score for Sample Student Response #1:

Step A - Content (Knowledge of Algebra, Patterns, and Functions): 0

Step B - Processes of Mathematics: 0

Annotation for Step B, Using the Rubric: This response is irrelevant to the problem. It merely paraphrases given information from the problem. No new, relevant information is given.

Sample Student Response #2

Amanda's long distance telephone plan charges a monthly fee of $14.95 and $.05 per minute for the number of minutes (m) that she uses her telephone. The monthly charge for Amanda's long distance telephone plan is represented by the expression shown below.

$$14.95 + 0.05m$$

14.95
+0.05
15.00

Step A

How much is the monthly charge for Amanda's long distance telephone plan if she talks for 150 minutes in one month?

$15.00

Step B

- Use what you know about expressions to explain how you determined the monthly charge for Amanda's long distance telephone plan. Use words, numbers, and/or symbols in your explanation.
- Suppose that the charge per minute changes to $.07 per minute. Explain how this change will affect the charge for Amanda's telephone plan. Use words, numbers, and/or symbols in your explanation.

I found the answer by adding $14.95 with is her monthly fee and $0.05 with is the cost of every minute. When they get added together it makes $15.00 with is the amount due.

If the plan changed to $0.07 a minute then the plan would change because then it's adding more cents to the total and would change the whole amount.

Score for Sample Student Response #2:

Step A - Content (Knowledge of Algebra, Patterns, and Functions): 0

Step B - Processes of Mathematics: 1

Annotation for Step B, Using the Rubric: This response demonstrates a minimal understanding and analysis of the problem. The student uses a partial application of a strategy by adding $.05 to $14.95. However, the student uses a process that is logically flawed because the student does not multiply the $.05 by 150 minutes. In addition, the student correctly states that a change in the charge per minute would add "more cents to the total and change the whole amount," but the explanation of how the monthly charge would change lacks support.

Sample Student Response #3

Step A

How much is the monthly charge for Amanda's long distance telephone plan if she talks for 150 minutes in one month?

$7.50

150
x.05
7.50

Step B

- **Use what you know about expressions to explain how you determined the monthly charge for Amanda's long distance telephone plan. Use words, numbers, and/or symbols in your explanation.**
- **Suppose that the charge per minute changes to $.07 per minute. Explain how this change will affect the charge for Amanda's telephone plan. Use words, numbers, and/or symbols in your explanation.**

I knew how to do the Problem because every minute she talks it is .05¢. So I Multiplied 150 by 0.05 and the answer was $7.50

The change of the plan would raise the monthly fee.

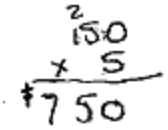
Score for Sample Student Response #3:

Step A - Content (Knowledge of Algebra, Patterns, and Functions): 0

Step B - Processes of Mathematics: 1

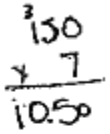
Annotation for Step B, Using the Rubric: This response demonstrates a minimal understanding and analysis of the problem. The student uses a partial application of a strategy by correctly multiplying $.05 by 150. However, the explanation for the process used to solve the problem reveals a serious flaw in reasoning as the student does not add this product to $14.95. The student explains how the monthly charge would change, "[it] would raise the monthly fee," but the support is missing.

Sample Student Response #4



Amanda's long distance telephone plan charges a monthly fee of $14.95 and $.05 per minute for the number of minutes (m) that she uses her telephone. The monthly charge for Amanda's long distance telephone plan is represented by the expression shown below.

$$14.95 + 0.05m$$



Step A

How much is the monthly charge for Amanda's long distance telephone plan if she talks for 150 minutes in one month?

$7.50

Step B

- Use what you know about expressions to explain how you determined the monthly charge for Amanda's long distance telephone plan. Use words, numbers, and/or symbols in your explanation.
- Suppose that the charge per minute changes to $.07 per minute. Explain how this change will affect the charge for Amanda's telephone plan. Use words, numbers, and/or symbols in your explanation.

what I did was I took 150 minutes times 5 because that's how much each minute was and multiplied it and got $7.50. 150 x 5 = $7.50

(minutes, cent per minute, total cost)

This would effect Amanda's charge because now the cent per minute increased so the cost would increase

(minutes, cent per min., cost.)

150 x .7 = $10.50

Score for Sample Student Response #4:

Step A - Content (Knowledge of Algebra, Patterns, and Functions): 0

Step B - Processes of Mathematics: 2

Annotation for Step B, Using the Rubric: This response demonstrates a general understanding and analysis of the problem. The student provides supportive information by showing how $0.05 was multiplied by 150 minutes to find $7.50 for the answer. However, the fact that the student neglects to add $7.50 to the constant monthly fee of $14.95 indicates a major flaw in reasoning and a partially developed explanation. The student effectively communicates the extension of the increasing telephone plan charge, and provides some supportive information for the change my multiplying $0.07 by 150 minutes to arrive at $10.50 for the cost of the minutes. Again, the constant monthly fee of $14.95 is ignored.

Sample Student Response #5

Step A

How much is the monthly charge for Amanda's long distance telephone plan if she talks for 150 minutes in one month?

$22.45

150 × .05 = 7.50

14.95 + 7.50 = 22.45

Step B

- Use what you know about expressions to explain how you determined the monthly charge for Amanda's long distance telephone plan. Use words, numbers, and/or symbols in your explanation.
- Suppose that the charge per minute changes to $.07 per minute. Explain how this change will affect the charge for Amanda's telephone plan. Use words, numbers, and/or symbols in your explanation.

First I did 150 (Amandas minuets) x$.05 (Minute charge). Then gave me $7.50. Next I added 14.95 (Monthly charge) by 7.50 (Minute charge for one month). I got $22.45 (This months phone bill).

This increas of 2 cents will make the bill more expencif. It will make the minute charge higher there for making the Monthly bill go up.

Score for Sample Student Response #5:

Step A - Content (Knowledge of Algebra, Patterns, and Functions): 1

Step B - Processes of Mathematics: 2

Annotation for Step B, Using the Rubric: This response demonstrates a general understanding and analysis of the problem. The student applies a reasonable strategy to arrive at the monthly charge of $22.45 and provides an explanation for the mathematical process used to solve this portion of the problem. However, the explanation of the relationship between the change in the charge per minute and the monthly charge for the telephone plan is overly general, "The increase of 2 cents will make the bill more expensive."

Sample Student Response #6

Step A

How much is the monthly charge for Amanda's long distance telephone plan if she talks for 150 minutes in one month?

$21.45

Step B

- Use what you know about expressions to explain how you determined the monthly charge for Amanda's long distance telephone plan. Use words, numbers, and/or symbols in your explanation.
- Suppose that the charge per minute changes to $.07 per minute. Explain how this change will affect the charge for Amanda's telephone plan. Use words, numbers, and/or symbols in your explanation.

The first thing I did was think about order of operations. Then I multiplied 150 by .05 and got $7.50. Then I added 7.50 and 14.95 to get a total of $21.45. If the charge changed from .05 to .07, instead of paying a fee of $21.45, you would have to pay $25.45. To get this answer, I multiplied 150 by .07, and got $10.50. Then I added $14.95 and got my final answer of $25.45

Score for Sample Student Response #6:

Step A - Content (Knowledge of Algebra, Patterns, and Functions): 0

Step B - Processes of Mathematics: 3

Annotation for Step B, Using the Rubric: This response demonstrates a comprehensive understanding and analysis of the problem. The student applies a reasonable strategy of in the context of the problem. The minor arithmetic error leading to an answer of $21.45 in Step A does not diminish the student's understanding of the problem. The extension concerning the change in the charge per minute and the total monthly charge are clear and stated explicitly. In addition, the explanations are clear and fully developed with appropriate support.

Sample Student Response #7

$14.95 + 0.05m$

0.05 × 150 = 7.50

Step A

How much is the monthly charge for Amanda's long distance telephone plan if she talks for 150 minutes in one month?

22.45

14.95 + 7.50 = 22.45

Step B

- Use what you know about expressions to explain how you determined the monthly charge for Amanda's long distance telephone plan. Use words, numbers, and/or symbols in your explanation.
- Suppose that the charge per minute changes to $.07 per minute. Explain how this change will affect the charge for Amanda's telephone plan. Use words, numbers, and/or symbols in your explanation.

0.02 × 150 = 3.00

It would effect the charge because for every 150 minute you would have to multiply 2 more cents. You would only have to pay 7.50 you would have to pay 10.50.

Score for Sample Student Response #7:

Step A - Content (Knowledge of Algebra, Patterns, and Functions): 1

Step B - Processes of Mathematics: 3

Annotation for Step B, Using the Rubric: This response demonstrates a comprehensive understanding and analysis of the problem. The student applies a reasonable strategy in the context of the problem. The student provides numerical support for explanations that are fully developed, and logical. The student explicitly states the extension with regard to raising the per minute charge and the increase that is paid per month, "for every 150 minutes you would have to multiply 2 more cents." The student provides support for this by multiplying 150 minutes by $.02 and comparing the $7.50 charge to the $10.50 charge.

Sample Student Response #8

Amanda's long distance telephone plan charges a monthly fee of $14.95 and $.05 per minute for the number of minutes (m) that she uses her telephone. The monthly charge for Amanda's long distance telephone plan is represented by the expression shown below.

$14.95 + 0.05m$

Step A

How much is the monthly charge for Amanda's long distance telephone plan if she talks for 150 minutes in one month?

22.45

Step B

- Use what you know about expressions to explain how you determined the monthly charge for Amanda's long distance telephone plan. Use words, numbers, and/or symbols in your explanation.
- Suppose that the charge per minute changes to $.07 per minute. Explain how this change will affect the charge for Amanda's telephone plan. Use words, numbers, and/or symbols in your explanation.

The extra will increase Amandas long distance chared by $10.50. Her total monthly fee will be 25.45.

Score for Sample Student Response #8:

Step A - Content (Knowledge of Algebra, Patterns, and Functions): 1

Step B - Processes of Mathematics: 3

Annotation for Step B, Using the Rubric: This response demonstrates a comprehensive understanding and analysis of the problem. The student applies a reasonable strategy in the context of the problem. The student provides support for explanations that are clear, fully developed, and logical. The student provides support for these explanations by showing all work as the expression is solved both when *m* equals $.05 and when *m* equals $.07. Compare to Sample Student Response #7.

Sample Student Response #9

Amanda's long distance telephone plan charges a monthly fee of $14.95 and $.05 per minute for the number of minutes (m) that she uses her telephone. The monthly charge for Amanda's long distance telephone plan is represented by the expression shown below.

$$14.95 + 0.05m$$

Step A

How much is the monthly charge for Amanda's long distance telephone plan if she talks for 150 minutes in one month?

$750

Step B

- Use what you know about expressions to explain how you determined the monthly charge for Amanda's long distance telephone plan. Use words, numbers, and/or symbols in your explanation.
- Suppose that the charge per minute changes to $.07 per minute. Explain how this change will affect the charge for Amanda's telephone plan. Use words, numbers, and/or symbols in your explanation.

3
150
x 7
1050

I took the 5 cents and times it by the 150 minutes and got $750.

Instead of paying $750 with the 5 cents per minute she would pay $1050 dollars with 7 cents per minutes

Score for Sample Student Response #9:

Step A - Content (Knowledge of Algebra, Patterns, and Functions): 0

Step B - Processes of Mathematics: 1

Annotation for Step B, Using the Rubric: This response demonstrates a minimal understanding and analysis of the problem. The student uses a partial application of a strategy by taking "the 5 cents and times it by the 150 minutes and got $750." However, the explanation for the process used to solve the problem reveals a serious logical flaw in as the student omits the decimal point in the product. In addition, the student does not add this product to $14.95. The explanation for how the change in the per minute charge affects the monthly charge is incomplete, and omits the decimal point. The student implies how the cost will change by multiplying 150 by 7 cents to arrive at $1050, but ignores the constant charge as part of the monthly cost. Compare to Sample Student Response #4.

Sample Student Response #10

Amanda's long distance telephone plan charges a monthly fee of $14.95 and $.05 per minute for the number of minutes (m) that she uses her telephone. The monthly charge for Amanda's long distance telephone plan is represented by the expression shown below.

$$14.95 + 0.05m$$

Step A

How much is the monthly charge for Amanda's long distance telephone plan if she talks for 150 minutes in one month?

$22.45

150 × 0.05 = 7.50; 7.50 + 14.95 = 22.45

150 × 0.07 = 10.50; 10.50 + 14.95 = 25.45

Step B

- Use what you know about expressions to explain how you determined the monthly charge for Amanda's long distance telephone plan. Use words, numbers, and/or symbols in your explanation.

- Suppose that the charge per minute changes to $.07 per minute. Explain how this change will affect the charge for Amanda's telephone plan. Use words, numbers, and/or symbols in your explanation.

I got this answer by multaply 150 x0.05 which came out to be 7.50. Then I had to add 14.95 to come to a total of $22.45. But if it was 0.07¢ per minute the money would go up. The answer would come out to be $25.45.

Score for Sample Student Response #10:

Step A - Content (Knowledge of Algebra, Patterns, and Functions): 1

Step B - Processes of Mathematics: 3

Annotation for Step B, Using the Rubric: This response demonstrates a comprehensive understanding and analysis of the problem. The student applies a reasonable strategy in the context of the problem. The explanations provided are clear, fully developed, and logical. The student provides numerical support for the original cost of $22.85 and changed cost of $25.45. The extension from the change in the cost per minute to the total monthly cost is stated explicitly, "the money would go up. The answer would come out to be $25.45." Compare to Sample Student Response #8.

Sample Student Response #11

Amanda's long distance telephone plan charges a monthly fee of $14.95 and $.05 per minute for the number of minutes (m) that she uses her telephone. The monthly charge for Amanda's long distance telephone plan is represented by the expression shown below.

$$14.95 + 0.05m$$

Step A

How much is the monthly charge for Amanda's long distance telephone plan if she talks for 150 minutes in one month?

$7.50

150
× .05
$7.50

Step B

- Use what you know about expressions to explain how you determined the monthly charge for Amanda's long distance telephone plan. Use words, numbers, and/or symbols in your explanation.

- Suppose that the charge per minute changes to $.07 per minute. Explain how this change will affect the charge for Amanda's telephone plan. Use words, numbers, and/or symbols in your explanation.

This would change the telephone plan by increasing the amount that Amanda pays per month for calling long distance. For example, if she used 275 minutes in one month, her bill would be a total of $19.25 for calling long distance in one month.

Score for Sample Student Response #11:

Step A - Content (Knowledge of Algebra, Patterns, and Functions): 0

Step B - Processes of Mathematics: 1

Annotation for Step B, Using the Rubric: This response demonstrates a minimal understanding and analysis of the problem. The student uses a partial application of a strategy by multiplying $.05 by 150. However, the explanation reveals a logical flaw as the student fails to add this product to $14.95. The student correction states that increasing the per minute charge of the plan "would change the plan by increasing the amount that Amanda pays per month for calling long distance." However, appropriate support for this extension is not provided. Compare to Sample Student Response #2.

Sample Student Response #12

Amanda's long distance telephone plan charges a monthly fee of $14.95 and $.05 per minute for the number of minutes (m) that she uses her telephone. The monthly charge for Amanda's long distance telephone plan is represented by the expression shown below.

$$14.95 + 0.05m$$

Step A

14.95

How much is the monthly charge for Amanda's long distance telephone plan if she talks for 150 minutes in one month?

22.45

Step B

- Use what you know about expressions to explain how you determined the monthly charge for Amanda's long distance telephone plan. Use words, numbers, and/or symbols in your explanation.
- Suppose that the charge per minute changes to $.07 per minute. Explain how this change will affect the charge for Amanda's telephone plan. Use words, numbers, and/or symbols in your explanation.

150 x .05 = $7.5

14.95 + 7.5 = $22.45

Answer $22.45

Before	After	
150x0.05=$7.5	150x.07=$0.5	Compare 25.45 to 22.45
14.95+$7.5=$22.45	$14.95 + 10.5 = $25.45	

Score for Sample Student Response #12:

Step A - Content (Knowledge of Algebra, Patterns, and Functions): 1

Step B - Processes of Mathematics: 3

Annotation for Step B, Using the Rubric: This response demonstrates a comprehensive understanding and analysis of the problem. The student applies a reasonable strategy in the context of the problem. The student applies a reasonable strategy in the context of the problem. The student provides numerical support for explanations that are fully developed, and logical. The student uses a comparison to state explicitly the extension from raising the per minute charge to the amount that is paid per month. Compare to Sample Student Response #7.

Sample Student Response #13

Amanda's long distance telephone plan charges a monthly fee of $14.95 and $.05 per minute for the number of minutes (m) that she uses her telephone. The monthly charge for Amanda's long distance telephone plan is represented by the expression shown below.

$14.95 + 0.05m$

Step A

$= 15.00$

How much is the monthly charge for Amanda's long distance telephone plan if she talks for 150 minutes in one month?

$30

Step B

- Use what you know about expressions to explain how you determined the monthly charge for Amanda's long distance telephone plan. Use words, numbers, and/or symbols in your explanation.

- Suppose that the charge per minute changes to $.07 per minute. Explain how this change will affect the charge for Amanda's telephone plan. Use words, numbers, and/or symbols in your explanation.

Monthly Amanda would pay $30 because 5 ÷ 150 = 30 which those two equal how much to pay a month. Well if you had .07 per m you would have to x it by two making you pay $60 monthly for your phone bill.

Score for Sample Student Response #13:

Step A - Content (Knowledge of Algebra, Patterns, and Functions): 0

Step B - Processes of Mathematics: 0

Annotation for Step B, Using the Rubric: This response is completely incorrect. The strategy of dividing 150 by 5 is inappropriate for this problem.

Sample Student Response #14

Amanda's long distance telephone plan charges a monthly fee of $14.95 and $.05 per minute for the number of minutes (m) that she uses her telephone. The monthly charge for Amanda's long distance telephone plan is represented by the expression shown below.

$$14.95 + 0.05m$$

Step A

How much is the monthly charge for Amanda's long distance telephone plan if she talks for 150 minutes in one month?

22.45 $

Step B

- Use what you know about expressions to explain how you determined the monthly charge for Amanda's long distance telephone plan. Use words, numbers, and/or symbols in your explanation.
- Suppose that the charge per minute changes to $.07 per minute. Explain how this change will affect the charge for Amanda's telephone plan. Use words, numbers, and/or symbols in your explanation.

First I multiplied the number of minutes she talked on the plan (150) by the charge per minute (.05¢) and then used that answer (7.50$) and added it to the monthly fee (14.95$) to get the total money she owed (22.45$) Depending how .07¢ is .02¢ more than .05¢, it would obviously make the total charge a little more.

Score for Sample Student Response #14:

Step A - Content (Knowledge of Algebra, Patterns, and Functions): 1

Step B - Processes of Mathematics: 2

Annotation for Step B, Using the Rubric: This response demonstrates a general understanding and analysis of the problem. The student applies a reasonable strategy in the context of the problem to arrive at the solution to Step A of this problem. The student provides appropriate support by explaining how this total cost was determined; "I multiplied the number of minutes...by the charge per minute...and added it to the monthly fee to get the total money she owed." However, the explanation of the relationship between the change in the charge per minute and the monthly charge for the telephone plan is overly general and lacks support, "It would obviously make the total charge a little more." Compare to Sample Student Response #5.

Sample Student Response #15

Amanda's long distance telephone plan charges a monthly fee of $14.95 and $.05 per minute for the number of minutes (m) that she uses her telephone. The monthly charge for Amanda's long distance telephone plan is represented by the expression shown below.

$$14.95 + 0.05m$$

Step A

How much is the monthly charge for Amanda's long distance telephone plan if she talks for 150 minutes in one month?

150 × .05 = 7.50

150 × .07 = 10.50

Step B

- Use what you know about expressions to explain how you determined the monthly charge for Amanda's long distance telephone plan. Use words, numbers, and/or symbols in your explanation.

- Suppose that the charge per minute changes to $.07 per minute. Explain how this change will affect the charge for Amanda's telephone plan. Use words, numbers, and/or symbols in your explanation.

To figure out how I solved Amanda's problem is by multiplying the charge that she has to pay for 1 minute by the minutes she talked on the phone.

If Amanda had to pay 2 more cents for the cost of the month she will be paying more.

.05¢ = $7.50 .07¢ = $10.50

Score for Sample Student Response #15:

Step A - Content (Knowledge of Algebra, Patterns, and Functions): 0

Step B - Processes of Mathematics: 2

Annotation for Step B, Using the Rubric: This response demonstrates a general understanding and analysis of the problem. The student uses a partial application of a strategy by multiplying 150 by the cost per minute to arrive at $7.50 for the first charge and $10.50 for the increased charge. However, the response is flawed because the student never adds the constant $14.95 fee to either of these products. Thus, the connection between the initial fee and the increased fee is overly general and lacks the appropriate support. Compare to Sample Student Response #4.

Rubric - Extended Constructed Response (ECR)

Score 3
The response demonstrates a comprehensive understanding and analysis of a problem.

- Application of a reasonable strategy in the context of the problem is indicated.
- Explanation[1] of and/or justification[2] for the mathematical process(es) used to solve a problem is clear, fully developed, and logical.
- Connections and/or extensions made within mathematics or outside of mathematics are clear and stated explicitly.
- Supportive information and/or numbers are provided as appropriate. [3]

Score 2
The response demonstrates a general understanding and analysis of a problem.

- Application of a reasonable strategy in the context of the problem is indicated.
- Explanation[1] of and/or justification[2] for the mathematical process(es) used to solve a problem is feasible, but may be only partially developed.
- Connections and/or extensions made within mathematics or outside of mathematics are partial or overly general, or may be implied.
- Supportive information and/or numbers are provided as appropriate. [3]

Score 1
The response demonstrates a minimal understanding and analysis of a problem.

- Partial application of a strategy in the context of the problem is indicated.
- Explanation[1] of and/or justification[2] for the mathematical process(es) used to solve a problem is logically flawed or missing.
- Connections and/or extensions made within mathematics or outside of mathematics are flawed or missing.
- Supportive information and/or numbers may or may not be provided as appropriate.[3]

Score 0
The response is completely incorrect, irrelevant to the problem, or missing.[4]

Notes:

1 Explanation refers to students' ability to communicate how they arrived at the solution for an item using the language of mathematics.

2 Justification refers to students' ability to support the reasoning used to solve a problem, or to demonstrate why the solution is correct using mathematical concepts and principles.

3 Students need to complete rubric criteria for *explanation, justification, connections* and/or *extensions* as cued for in a given problem.

4 Merely an exact copy or paraphrase of the problem will receive a score of "0".

Rubric Document Date: August 2003